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Claim listing

1. (original) A method of configuring settings in an imaging device, comprising:
- 5 retrieving at least one previous state of a plurality of settings in said imaging device;
- determining a new state of said plurality of settings in said imaging device;
- 10 combining said at least one previous state with said new state to form an optimal state of said plurality of settings; and
- configuring said settings in said imaging device according to said optimal state.
2. (original) The method of claim 1, wherein combining said previous state with said new state to form an optimal state comprises:
- 15 forming a point representing said new state in a settings space from said plurality of settings in said imaging device, at least one of said plurality of settings being user selected on said imaging device;
- 20 identifying a cluster of points representing said at least one previous state in said settings space;
- adding said point in said settings space to said cluster of points; and
- 25 calculating an optimal point to represent said cluster of points, wherein said optimal point represents said optimal state.
3. (original) The method of claim 2, wherein said calculating said optimal point comprises calculating an arithmetic mean point for said cluster of points.

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4. (original) The method of claim 2, wherein said settings space comprises a multidimensional space having a plurality of dimensions, and wherein each of said plurality of dimensions is defined by a corresponding one of said plurality of settings in said imaging device.

5. (original) The method of claim 4, wherein each of said plurality of settings has a range of acceptable values with an upper limit and a lower limit, and wherein an upper boundary of each of said dimensions is defined by said upper limit of said corresponding one of said plurality of settings, and wherein a lower boundary of each of said dimensions is defined by said lower limit of said corresponding one of said plurality of settings.

6. (original) The method of claim 2, wherein said imaging device has a plurality of modes each having at least one previous state of said plurality of settings, and wherein retrieving said at least one previous state of said plurality of settings comprises identifying one of said plurality of modes and retrieving said at least one previous state of said plurality of settings for said one of said plurality of modes.

7. (original) The method of claim 6, wherein identifying said one of said plurality of modes comprises identifying a currently selected mode in said imaging device.

8. (original) The method of claim 6, said imaging device having a cluster of at least one point in said settings space for each of said plurality of modes, and wherein identifying said one of said plurality of modes comprises selecting a nearest one of said clusters in said settings

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space to said point representing said new state and identifying one of said plurality of modes corresponding to said nearest one of said clusters as said one of said plurality of modes.

- 5 9. (original) The method of claim 6, said imaging device having a cluster of at least one point in said settings space for each of said plurality of modes, and wherein identifying said one of said plurality of modes comprises creating a new mode containing said point representing said new state and identifying said new mode as said one of said plurality of modes if said point representing said new state lies at least a predetermined distance outside each of said clusters.

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- 15 10. (original) The method of claim 1, wherein said previous state and said new state form locations in a state space defined by said plurality of settings in said imaging device, and wherein combining said previous state with said new state to form an optimal state comprises determining a location of said optimal state, wherein said optimal state location lies a distance from said previous state location along a direction from said previous state location toward said new state location so that said optimal state location lies between said previous state location and said new state location.

- 20 11. (original) The method of claim 10, wherein said distance has a predetermined value.

- 25 12. (original) The method of claim 10, wherein said distance lies a predetermined percentage of said distance between said previous state and said new state.

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13. (original) The method of claim 1, wherein said new state of said plurality of settings is selected in said imaging device by reading values for said plurality of settings from at least one control input on said imaging device.

5 14. (original) The method of claim 1, wherein said new state of said plurality of settings is selected in said imaging device by:

presenting a plurality of sample images on said imaging device, wherein each of said plurality of sample images is generated based on variations of said plurality of settings;

determining which of said plurality of sample images was user selected; and

selecting said plurality of settings according to settings corresponding to said user selected sample image.

15 15. (original) The method of claim 1, wherein said new state of said plurality of settings is selected in said imaging device by reading values for said plurality of settings from a remote computer.

20 16. (original) The method of claim 1, wherein said new state of said plurality of settings is selected in said imaging device by:

presenting a plurality of sample images on a remote computer, wherein each of said plurality of sample images is generated based on variations of said plurality of settings;

determining which of said plurality of sample images was user selected on said remote computer; and

selecting said plurality of settings according to

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settings corresponding to said user selected sample image.

17. (original) The method of claim 1, wherein said new state of said plurality of settings is selected in said imaging device by:

preparing a plurality of printed sample images, wherein each of said plurality of printed sample images is generated based on variations of said plurality of settings;

determining which of said plurality of printed sample images was user selected; and

selecting said plurality of settings according to settings corresponding to said user selected printed sample image.

18. (original) An electronic imaging device, comprising:
an imaging system; and
computer readable program code in said electronic imaging device, said computer readable program code comprising:

i) code for retrieving at least one previous state of a plurality of settings in said imaging device;

ii) code for determining a new state of said plurality of settings in said imaging device;

iii) code for combining said at least one previous state with said new state to form an optimal state of said plurality of settings; and

iv) code for configuring said settings in said imaging device according to said optimal state.

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19. (original) The electronic imaging device of claim 18, wherein said code for combining said previous state with said new state to form an optimal state comprises:

5 a) code for forming a point representing said new state in a settings space from said plurality of settings in said imaging device, at least one of said plurality of settings being user selected on said imaging device;

10 b) code for identifying a cluster of points representing said at least one previous state in said settings space;

c) code for adding said point in said settings space to said cluster of points; and

15 d) code for calculating an optimal point to represent said cluster of points, wherein said optimal point represents said optimal state.

20. (original) The electronic imaging device of claim 18, wherein said previous state and said new state form locations in a state space defined by said plurality of settings in said imaging device, and wherein said code for combining said previous state with said new state to form an optimal state comprises determining a location of said optimal state, wherein said optimal state location lies a distance from said previous state location along a direction from said previous state location toward said new state location so that said optimal state location lies between said previous state location and said new state location.

21. (original) A digital imaging apparatus, comprising:
30 means for selecting a mode on said digital imaging apparatus;
means for adjusting a plurality of settings on said

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digital imaging apparatus; and
means for tracking user preferences in said
plurality of settings.
